

## CLAIMS

1. A porous membrane cartridge comprising:

a cylindrical barrel having openings at a top end and a rear end, respectively;

5 a cap formed into a cylindrical shape having a fit-in portion fitted outside said top end, abutting with an opening edge of said top end, and having a sandwiching face for sandwiching a porous membrane between itself and said barrel; and

10 said porous membrane sandwiched between the opening edge of said barrel and said cap,

wherein said cap is fixed to said barrel so as not to be pulled out of the barrel in a state of crushing a peripheral edge of said porous membrane and sandwiching the porous membrane between itself and said cap.

2. The porous membrane cartridge according to claim 1, wherein the opening 15 edge of said barrel and the sandwiching face of said cap are welded by ultrasound.

3. The porous membrane cartridge according to claim 2, wherein in addition that the opening edge of said barrel is formed to a taper where an inner perimeter side is more retreated than an outer perimeter side, said opening edge is welded to the sandwiching face of said cap.

20 4. The porous membrane cartridge according to claim 3, wherein said taper is formed with continuing into a flat portion formed at an outmost perimeter of said opening edge.

5. The porous membrane cartridge according to claim 2, wherein in addition 25 that a bead portion as an energy director is circularly formed on any one of said opening edge and said sandwiching face, and said porous membrane is sandwiched and crushed with the bead portion, said cap and said barrel are welded by

ultrasound

6. The porous membrane cartridge according to claim 1, wherein said barrel comprises a joint portion, which is configured to abutting with an opening edge of the fit-in portion of said cap, on an outer perimeter of the barrel, and said cap and said barrel are made to adhere or are welded by the opening edge of said fit-in portion and said joint portion.

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7. The porous membrane cartridge according to claim 1, wherein said cap is fixed to said barrel by an engagement between any one of a depression and a protrusion formed on an outer perimeter face of said barrel and any one of a 10 depression and a protrusion formed on an inner perimeter face of said cap.

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8. The porous membrane cartridge according to claim 1, wherein said cap and said barrel are made to adhere by adhesive.

9. The porous membrane cartridge according to claim 1, wherein after said cap and said porous membrane are inserted in a cavity of an injection molding mold, 15 a shape of a portion of said barrel is molded by injecting a molding material in said cavity.